

Identification

- genotypic
 - PCR
 - RFLP
 - rRNA
 - Nucleic acid Probes
 - Nucleic acid Sequence analysis
 - Plasmid Fingerprinting
- phenotypic
 - Microscopy (staining)
 - Simple stain
 - Special stain
 - Acid-fast stain
 - Gram stain
 - Culture
 - Biochemical test
 - Agglutination
 - ELISAs
 - IFAs

Classification

- phenotypic
 - Morphology (cocci, Bacilli, curved, filamentous)
 - Indol test
 - Methyl Red/Voges-Proskauer
 - Citrate utilization
 - Coagulase test
 - H₂S Production (TSA)
 - Urease test
 - Phenylalanine deaminase test.
- genotypic (genomic G+C content)
 - growth requirement
 - nutritional requirement
 - gaseous requirement
 - Aerobic, Anaerobes, facultative
 - Thermal condition
 - (Psychrophiles, Mesophiles, Thermophiles)

Rapid tests (consist of 20 tests that are converted to digital profile).

Phases of growth Media

- ① liquid (broth)
- ② semi-solid
- ③ solid

Principles of cultivation

- ① Nutritional requirement
 - a - Non fastidious
 - b - Fastidious

② Streaking for isolation

③ Streaking for quantitation



Nomenclature

- ① Binomial nomenclature
(genus, species)

- ② Both italicized or underlined.

Environmental reservoirs

- (a) endogenous site
 - skin
 - colon
 - oropharynx

(b) exogenous

- water
- Air, fomites
- food
- ticks

types of culture media

① BASAL MEDIA

e.x: Nutrient broth, nutrient solid
Peptone water

⑤ TRANSPORT MEDIA

e.x: Cary-Blair medium

Anies medium, Stuart medium

⑥ STORAGE MEDIA



② ENRICHED MEDIA

e.x: blood agar, chocolate agar
Löwenstein-Jensen media

③ SELECTIVE MEDIA

e.x: SSA, Mannitol salt agar

④ DIFFERENTIAL MEDIA

e.x: blood agar, Mac conkey agar

